



**TOOL MODEL: AVANTI 20**

**PRESSURE/TORQUE CONVERSION CHART**

**Standard Torque Chart**

| <b>PRESSURE IN<br/>PSI</b> | <b>FT.LBS.</b> | <b>TORQUE IN<br/>KGM</b> | <b>NM</b> | <b>PRESSURE IN<br/>BAR</b> |
|----------------------------|----------------|--------------------------|-----------|----------------------------|
| 1500                       | 2760           | 382                      | 3741      | 104                        |
| 1600                       | 2944           | 407                      | 3991      | 110                        |
| 1800                       | 3312           | 458                      | 4490      | 124                        |
| 2000                       | 3680           | 509                      | 4989      | 138                        |
| 2200                       | 4056           | 561                      | 5498      | 152                        |
| 2400                       | 4432           | 613                      | 6008      | 165                        |
| 2600                       | 4808           | 665                      | 6518      | 179                        |
| 2800                       | 5184           | 717                      | 7027      | 193                        |
| 3000                       | 5560           | 769                      | 7537      | 207                        |
| 3200                       | 5929           | 820                      | 8037      | 220                        |
| 3400                       | 6298           | 871                      | 8538      | 234                        |
| 3600                       | 6667           | 922                      | 9038      | 248                        |
| 3800                       | 7036           | 973                      | 9538      | 262                        |
| 4000                       | 7405           | 1024                     | 10038     | 276                        |
| 4200                       | 7754           | 1072                     | 10511     | 290                        |
| 4400                       | 8103           | 1121                     | 10984     | 303                        |
| 4600                       | 8452           | 1169                     | 11458     | 317                        |
| 4800                       | 8801           | 1217                     | 11931     | 331                        |
| 5000                       | 9150           | 1265                     | 12404     | 345                        |
| 5200                       | 9501           | 1314                     | 12880     | 358                        |
| 5400                       | 9852           | 1363                     | 13355     | 372                        |
| 5600                       | 10203          | 1411                     | 13831     | 386                        |
| 5800                       | 10554          | 1460                     | 14307     | 400                        |
| 6000                       | 10905          | 1508                     | 14783     | 414                        |
| 6200                       | 11241          | 1555                     | 15238     | 427                        |
| 6400                       | 11577          | 1601                     | 15694     | 441                        |
| 6600                       | 11913          | 1648                     | 16149     | 455                        |
| 6800                       | 12249          | 1694                     | 16605     | 468                        |
| 7000                       | 12585          | 1741                     | 17060     | 482                        |
| 7200                       | 12918          | 1787                     | 17512     | 496                        |
| 7400                       | 13251          | 1833                     | 17963     | 510                        |
| 7600                       | 13584          | 1879                     | 18414     | 524                        |
| 7800                       | 13917          | 1925                     | 18866     | 538                        |
| 8000                       | 14250          | 1971                     | 19317     | 552                        |
| 8200                       | 14614          | 2021                     | 19811     | 565                        |
| 8400                       | 14978          | 2071                     | 20304     | 579                        |
| 8600                       | 15342          | 2122                     | 20798     | 593                        |
| 8800                       | 15706          | 2172                     | 21291     | 607                        |
| 9000                       | 16070          | 2222                     | 21784     | 620                        |
| 9200                       | 16434          | 2273                     | 22278     | 634                        |
| 9400                       | 16798          | 2323                     | 22771     | 648                        |
| 9600                       | 17162          | 2374                     | 23265     | 662                        |
| 9800                       | 17526          | 2424                     | 23758     | 676                        |
| 10000                      | 17890          | 2474                     | 24252     | 690                        |

## IMPORTANT SAFETY INSTRUCTIONS

**WARNING:** Your **HYTORC TORQUE MACHINE** is a power tool, and as with any power tool, certain safety precautions should be observed to avoid accidents or personal injury. The following tips will assist you.

- **READ ALL INSTRUCTIONS.**
  - **KEEP WORK AREA CLEAN AND WELL LIT.**
  - **CONSIDER WORK AREA ENVIRONMENT.** Electrical Pumps should never be used in an atmosphere which can be considered potentially volatile. If there is any doubt, use an air pump. Also Note: metal to metal contact can cause sparks, precautions should be taken.
  - **AVOID PREMATURE TOOL STARTING.** The Pump Remote Control is for the **TOOL OPERATOR** only.
  - **STAY CLEAR DURING OPERATION.** In most cases, the tool will allow “hands free” operation. If the tool must be held or steadied during operation, use alternative means of securing the tool to the application
  - **GUARD AGAINST ELECTRIC SHOCK.** Ensure the pump is properly grounded and the proper voltage is being used
  - **STORE IDLE TOOLS.** When not in use, tool and accessories should be properly stored to avoid deterioration
  - **USE RIGHT TOOL.** Don't force small tools or attachments to do the job of a larger tool. Don't use a tool for purposes not intended.
  - **PROPER SAFETY ATTIRE.** When handling/operating hydraulic equipment use work gloves, hard hats, safety shoes and other applicable clothing.
  - **USE SAFETY GLASSES.**
  - **MOVING EQUIPMENT.** Do not use hydraulic hoses, uni-swivels, pump power or remote cords as means of moving the equipment.
  - **MAINTAIN TOOLS WITH CARE.** For top performance, inspect tools, powerpack and accessories for visual damage frequently and always prior to use. Always follow instruction for proper tool and pump maintenance. Refer to the Operations Maintenance Section for further clarification
  - **STAY ALERT.** Watch what you are doing. Use Common sense. Do not use power equipment under the influence of any mood altering substances.
  - **PRIOR TO OPERATION**
    - Ensure that all hydraulic connections are securely connected and there is no leakage
    - Verify that the Hydraulic hoses are not kinked or otherwise damaged.
    - Ensure the square drive and its retainer are fully and securely engaged.
    - Be certain that all connectors, elbows, fitting and swivels are not bent, loose or damaged.
  - **PRIOR TO USE.**
    - Check sockets for size, quality and flaws. (Do not use if questionable)
    - Cycle tool to ensure proper function.
    - Locate a solid, secure reaction point.
    - Be sure the reaction arm retaining clamp is fully engaged.
    - Be sure the hydraulic hoses are free of the reaction point.
    - Pressurize the system momentarily; if the tool tends to “ride up” or to “creep”, stop and re-adjust the reaction arm to a more solid and secure position.
- NOTE:** Remain clear of the reaction arm during operation and never put body parts between reaction arm and reaction surfaces.
- **ALWAYS USE QUALITY ACCESSORIES.** Always use top quality impact sockets in good condition which are the correct size and fully engage the nut. Hidden flaws, however, remain a possibility which could cause breakage, so stay clear of sockets during operation
  - **DO NOT USE** other equipment to enhance performance (Hammer on Socket/Tool)**NOTE:** Hytorc Pumps are designed to operate Hytorc Tools only. Damage may occur to the pump or the product that is being operated due to misuse.

**SAVE THESE INSTRUCTIONS FOR FUTURE USE!**